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(54) Title: NEISSERIAL VACCINE COMPOSITIONS AND METHODS

(57) Abstract: Methods and compositions for the treatment of microbial infection, and in particular meningococcal disease, comprise a commensal *Neisseria* or an extract of a commensal *Neisseria*. Further methods and compositions comprise commensal *Neisseria* which express genes from virulent strains of *Neisseria* and/or heterologous gene products from non-neisserial sources. Such compositions are used in vaccine preparations for the treatment of microbial infection.

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# INTERNATIONAL SEARCH REPORT

Inter. no. application No

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K39/095 C12N1/21 C07K14/22 A61K39/40 C12N15/31  
A61P31/04 //(C12N1/21,C12R1:36)

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K C07K C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, MEDLINE, BIOSIS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CANN K J ET AL: "DETECTION OF ANTIBODIES TO COMMON ANTIGENS OF PATHOGENIC AND COMMENSAL NEISSERIA SPECIES" JOURNAL OF MEDICAL MICROBIOLOGY, vol. 30, no. 1, 1989, pages 23-32, XP000946799 ISSN: 0022-2615 abstract page 23, left-hand column, line 23 -right-hand column, line 3,20-25 page 24, left-hand column, paragraph 2 page 30, right-hand column, paragraphs 2,3	1-10, 17-25, 27,28,36
A		11-16, 26, 29-35, 37,38
	— -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- \*&\* document member of the same patent family

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>GOMEZ J A ET AL: "Antigenicity, cross-reactivity and surface exposure of the Neisseria meningitidis 37 kDa protein (Fbp)."</p> <p>VACCINE, vol. 14, no. 14, 1996, pages 1340-1346, XP004070969</p> <p>ISSN: 0264-410X</p> <p>abstract</p> <p>page 1340, right-hand column, paragraph 2</p> <p>page 1343, right-hand column, paragraph 2</p> <p>page 1345, right-hand column, paragraph 5</p> <p>table 1</p> <p>figure 1</p>	<p>1-7,10, 11, 17-23, 27,28,35</p>
X	<p>DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 1988</p> <p>AOUN L ET AL: "HUMAN ANTIBODY RESPONSE TO THE 70-KD COMMON NEISSERIAL ANTIGEN IN PATIENTS AND CARRIERS OF MENINGOCOCCI OR NON-PATHOGENIC NEISSERIA"</p> <p>Database accession no. PREV198886026860</p> <p>XP002149186</p> <p>abstract</p> <p>&amp; ANNALES DE L'INSTITUT PASTEUR MICROBIOLOGY, vol. 139, no. 2, 1988, pages 203-212, ISSN: 0769-2609</p>	<p>1,5,9, 17-20, 27,28,36</p>
X	<p>WO 96 29412 A (IAF BIO VAC INC ;BRODEUR BERNARD R (CA); MARTIN DENIS (CA); HAMEL)</p> <p>26 September 1996 (1996-09-26)</p> <p>page 5, line 24 -page 6, line 12</p> <p>page 13, line 31 -page 14, line 14</p>	<p>1,5,7, 17-20, 27,28,36</p>
P,X	<p>TRONCOSO G ET AL: "Antigenic cross-reactivity between outer membrane proteins of Neisseria meningitidis and commensal Neisseria species."</p> <p>FEMS IMMUNOLOGY AND MEDICAL MICROBIOLOGY, vol. 27, no. 2, February 2000 (2000-02), pages 103-109, XP000946807</p> <p>ISSN: 0928-8244</p> <p>page 104, left-hand column, paragraph 2</p> <p>page 108, left-hand column, paragraphs 3,4</p>	<p>1-10, 17-25, 27,28,36</p>

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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